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AIR RESOURCES BRANCH

RESEARCH GRANTS PROGRAMME



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AIR RESOURCES BRANCH

Technology Development and Appraisal Section

ARB-TDA-43-78

RESEARCH GRANTS PROGRAMME

INFORMATION BOOKLET

(REVISED)

Ontario Ministry
of the Environment
880 Bay Street,
4th Floor,
Toronto, Ontario.

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" AS SOON AS I HAD GOTTEN OUT OF THE HEAVY AIR
OF ROME AND FROM THE STINK OF THE SMOKY CHIMNEYS
THEREOF, WHICH, BEING STIRRED, POURED FORTH WHAT-
EVER PESTILENTIAL VAPOURS AND SOOT THEY HAD EN-
CLOSED IN THEM, I FELT AN ALTERATION OF MY DIS-
POSITION "

SENECA

61 A.D.

INTRODUCTION

The Air Resources Branch has the responsibility of providing scientific and technical research and support to the Ministry relating to the varied uses of the Province's air resources.

The nature, diversity, and location of human activity in Ontario pose some unique and extremely complex environmental problems, for which there are seldom quick or easy solutions. In many instances, the information required for the identification and alleviation of problems is either scarce or non-existent.

The Research Grants Programme (RGP) was developed to encourage applied research directed towards providing the information and techniques necessary for the attainment and maintenance of a high standard of air quality in Ontario and to maintain in the Province a high level of competence in air pollution science and technology.

Air Resources Branch's research grants are intended primarily to cover operating expenses such as: the employment of assistants, supplies, computing services, field trips, and minor equipment. It is assumed that the basic facilities required to carry out the proposed work are already available to the applicant.

Various important aspects of the RGP are discussed in the following paragraphs. Applicants are encouraged to read the booklet in full before attempting an application. If further information is required, applicants may contact the Programme Co-ordinator.

ELIGIBILITY:

Applications for grants will be accepted from any university, institute of technology, community college, or non-profit research institute in Ontario, no later than the last day of February, for projects that are to commence the following fiscal year (April 1-March 31). All proposals must clearly pertain to air pollution science or technology.

APPLICATION FORMAT:

Applications should be made in duplicate and should contain the following information:

- 1) A project title.
- 2) A lucid statement of the objective(s).
- 3) A general description of the proposed study, its significance and relevance to air pollution science or technology.
- 4) A concise statement of the work programme.
- 5) A succinct and clear statement of what is planned to be achieved during the succeeding fiscal year.
- 6) A detailed budgetary statement.
- 7) The names of principal and junior investigators.
A brief resume of the principal investigator(s) with a list of recent publications should be included.
- 8) For projects involving salary payments to university or other educational institution faculty members, authorization from the dean of the faculty and the head of the department must be included. (see restrictions, described on Page 6, however).
- 9) A signed acceptance of the conditions of funding, including signatures of the principal investigator, the head of the department, the dean of the faculty and the director

of the office of research administration.

- 10) The names of other agencies applied to for funds, the amount applied for and the amount received to date for the project (or closely related projects) from any source.

EVALUATION:

Applications are reviewed in two stages. First, each application is evaluated by the appropriate specialist in the Air Resources Branch. This evaluation, along with the application, is then reviewed by the Selection Committee, which is composed of various senior staff members of the Branch and the Chairman of the Ministry's Research Advisory Committee. The evaluations are carried out in light of the following considerations:

- 1) The scientific or technical soundness of the proposal.
- 2) The competence of the applicant(s) in the relevant discipline as well as the facilities available to the applicant.
- 3) The need for the proposed work and the potential benefits that would result from the execution of the proposed work programme.
- 4) The amount of alternate funding received for the project, or related projects.
- 5) The performance of those who have received previous funding.
- 6) The availability of funds for the RGP relative to the amount of money requested.

CONDITIONS OF FUNDING:

All applications must contain a signed copy of the following statement:

"I hereby certify that, to the best of my knowledge

and belief, the estimates in the aforementioned budget are accurate and truly reflect how the grant monies will be dispensed and that I agree to accept and comply with the Conditions of Award, as specified in the Research Grants Programme Information Booklet, upon receipt of an Air Resources Branch Research Grant". These conditions are as follows:

CONDITIONS OF AWARD

By signing the above statement, the applicant explicitly agrees to:

- 1) Provide the Branch with copies of all reports or publications resulting from this work.
- 2) Provide the Branch with a written report on the work completed during the fiscal year that the grant was held.
- 3) Provide the Branch with an audited statement of expenditures at the end of each fiscal year.
- 4) Provide the Branch, at the end of the fiscal year, with a list of capital equipment (as defined in the RGP Information Booklet) purchased with grant monies.
- 5) Return all capital equipment purchased with grant monies at the end of the fiscal year or alternatively, make some other suitable arrangement with the Programme Coordinator, if the equipment will continue to be used to carry out related work.
- 6) Immediately notify the Co-ordinator of any change in the scope or nature of the work programme, and return all funds to the Ministry not required to carry out the approved, revised programme.
- 7) Return to the Ministry all monies remaining at the completion of the project.
- 8) Make a presentation of the results obtained at one of the ARB Research Grant Seminars (see below).

RESEARCH GRANT SEMINARS:

All grant recipients are expected to make a full presentation of the results obtained during the study at one of the Branch's Research Grant Seminars, normally held in February of each year. Except in unusual circumstances, the presentation should be given by the principal investigator. If for some reason this is impossible, a suitable replacement, who is familiar with all aspects of the work, should be appointed.

Presentations will normally be approximately 30 minutes in length and shall be open to the scientific community. Participating investigators shall be notified of the seminar time and location well in advance. The location of the seminars will normally be Toronto.

Standard 2" carousel type slide and viewgraph overhead projectors will be provided by the Branch.

FINANCIAL STATEMENTS:

A financial statement certified by the office of research administration of the recipient's institution must be submitted to the Branch at the end of the fiscal year (March 31) for which the grant was awarded.

CAPITAL EQUIPMENT:

All capital equipment (defined below) purchased with grant monies from the Air Resources Branch remains the property of the Branch and must be returned to the Branch at the end of the fiscal year, unless other arrangements are made with the Co-ordinator. Such equipment may normally be retained as long as it is being used in air pollution research related to the original work programme.

Capital equipment includes such things as: power supplies, meteorological towers, air or source samplers or monitors, pumps, anemometers, recorders, transducers, calculators

or computers, precipitation samplers, chromatographs, spectrometers or spectrophotometers, etc.

A list of all such capital equipment purchased with ARB grant monies must be submitted at the end of each fiscal year for the duration of the project.

In cases where doubt exists concerning an item's classification, whether of a supply or capital nature, the Co-ordinator should be consulted.

SALARIES:

The principal investigator (s) and other senior research staff associated with the project who normally receive a salary on a continuing, annual basis from a university or or college may not receive salary payments (supplements) or fees for services from an Air Resources Branch Research Grants Programme award. This restriction is a change from previous Air Resources Branch policy which has been necessitated by the effect of inflation on RGP funds. Questions about this policy should be directed to the Programme Co-ordinator.

Salary payments to post doctoral fellows, graduate students, technicians or other assistants should not exceed existing NRC rates.

RESEARCH GRANT MONITORS:

An ARB staff member shall be designated as the "Grant Monitor" for each research grant awarded. He/she will be the grant recipient's liaison with the Branch and will act on requests for guidance or assistance. The Grant Monitor shall be responsible for a brief, clear evaluation of the progress made in each research programme he/she monitors. It is thus important that each Grant Monitor maintain contact with the

grant recipient throughout the year. This may require the occasional visitation of the investigator's facilities, as well as other forms of communication.

ALTERNATE FUNDING:

Applicants must indicate whether funds for the project or a similar project have been or are going to be solicited elsewhere. The following information should be included:

- 1) The name of the other agencies.
- 2) The amount sought from each agency.
- 3) The amount received to date from each source.

NOTIFICATION & ADMINISTRATION OF FUNDS:

Successful applicants will be notified in writing by the Deputy Minister's office and a cheque for the amount awarded shall be enclosed with the letter of notification.

Unsuccessful applicants shall be notified at the latest by the thirtieth of April, while applicants whose proposal was recommended for complete or partial funding will normally receive notification within two weeks of the approval of the budget by the Legislative Assembly of Ontario.

The funds will then be at the disposal of the applicant, according to the terms of the budget contained in the application. The proper administration of the funds shall be the responsibility of the office of research administration of the institution concerned, and the Co-ordinator of the Research Grants Programme should be notified of any changes in the work programme or budget of the project.

Funds remaining at the completion of the fiscal year must be returned to the Ministry, if they will not be used to complete the project.

REPORTING OF RESULTS:

Grant recipients are encouraged to publish the results of their work. It is also required that a report be submitted to the Branch upon completion of a project, or in the case of a partially completed project, a status report describing the progress to date should be submitted. This is particularly important if the investigator intends to re-apply for further funding, as additional funds normally will not be awarded until the report is received.

DURATION OF FUNDING:

The duration of a grant is for the period of one fiscal year. The awarding of a grant in any one year in no way implies that funding will be continued in subsequent years, unless this is specifically stated in the letter of notification.

OVERHEAD COSTS:

In view of the nature of the RGP, overhead costs will not be paid to the grantee's institution.

PROGRAMME OFFICERS:

The officers of the Research Grants Programme Selection Committee are:

Chairman:	Mr. A.J. Harris
Vice-Chairman:	Dr. S. Stevens
Co-ordinator:	Dr. R. Caton

AIR RESOURCES BRANCH
Research Grant Priorities

1978/79

1. Hazardous Airborne Contaminants:

- a) documentation of hazardous properties;
- b) determination of sources and source strengths;
- c) determination of sink mechanisms and strengths (fates);
- d) development of sampling and analytical methods;
 - i) organic vapours;
 - ii) organic compounds and heavy metals in airborne particulate matter;
 - iii) broad spectrum techniques for above substances.

2. New Technology:

- a) gaseous pollutant control techniques;
- b) particulate pollutant control techniques;
- c) process developments yielding reduced emissions.

3. Effects of Atmospheric Contaminants on Receptors:

- a) effects on vegetation (phytotoxicology);
- b) effects on materials (corrosion, etc.);
- c) odours.

4. Atmospheric Chemistry:

- a) Primary pollutants (gaseous and particulate),
 - i) sources and source strengths of reactive substances;
 - ii) sink mechanisms and strengths (precipitation scavenging, dry deposition, photochemical degradation, etc.)
- b) Secondary pollutants (gaseous and particulate),
 - i) formation mechanisms;
 - ii) reaction kinetics;
 - iii) sink mechanisms and strengths;



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